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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,163	07/08/2003	Cliff Chen	MR2349-946	6493

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ELLICOTT CITY, MD 21043

EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,163

Applicant(s)

CHEN, CLIFF

Examiner

Alan S Chen

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: insert “plurality of” after the word “a” and before “peripheral circuits”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,5-9,11-15 and 17-19 are rejected under 35 USC 103(a) as being unpatentable over US Pat. No. 5,861,822 to Park et al. (hereafter Park) in view of US Pat. No. 6,587,951 to Flanigan.
4. As per claims 1, 7 and 13, Park discloses a power off method for wireless device (Fig. 6, element 67-1), the wireless device comprising a plurality of peripheral circuits (Fig. 4a, circuits shown determine power off of battery in wireless mode or maintain power using battery) and a control chip (Fig. 4a, element 30), the method comprising the steps of terminating the power to peripheral circuits (Fig. 4a, when not connected by wire to the computer, peripheral circuitry, e.g., in element 38 is turned off) of said wireless device, hence bringing the wireless device into a power off mode (power off relative to the circuits in Fig. 4a, elements 37 and 38). Per claims 7 and 13, Park further discloses setting a unique ID code (Fig. 3, element 33) to identify the keyboard and keeping power to the control chip (element 30) even when there is no power from the wire (element 38).

Park does not disclose expressly the step of pressing a button to shut down the device.

Flanigan discloses shutting down a computer by pushing and holding the power button which is very well-known and widely implemented in the computer arts (Column 1, lines 54-61) to turn off devices.

Park and Flanigan are analogous art because they are from the same field of endeavor in handling power issues in computer devices, such that a smooth transition is experienced when going from one computer state to another.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement a power button feature on the wireless device disclosed by Park.

The suggestion/motivation for doing so would have been Parks explicit intention in his invention to minimize power consumption/drain on the batteries as demonstrated in the wakeup upon key pressed features (Fig. 6, element 67-3 and 67-4). Because the user can anticipate when he/she will be away from the computer, the key/button to power down to conserve energy would be obvious.

Therefore, it would have been obvious to combine Park with Flanigan for the benefit of maximizing the conservation of the battery life.

5. As per claims 2,3,8,9,14 and 15, Park combined with Flanigan disclose claims 1, 7 and 13 wherein Flanigan further discloses the power off features is determined if the power button is held for over a period T (e.g., 4 second, Column 1, lines 55-61) before shut down.

6. As per claims 5, 11 and 17, Park combined with Flanigan disclose claims 1, 7 and 13 wherein Park further discloses an additional step of setting proper I/O configurations before

entering power off mode (Fig. 6, element 62, FLAG_BIT_SET is a configuration set before power down, element 67-2).

7. As per claims 6, 12 and 18, Park combined with Flanigan disclose claims 1, 7 and 13 wherein Flanigan further disclose the power off button is the same button to power on the device (the “power” button, Column 1, lines 55-61).

8. As per claim 19, Park combined with Flanigan discloses claim 13, wherein Park further discloses said wireless peripheral device is a wireless keyboard (Column 2, lines 1-10).

9. Claims 4, 10 and 16 are rejected under 35 USC 103(a) as being unpatentable over Park in view of Flanigan in further view of US Pat. No. 6,766,392 to Furukawa et al. (hereafter Furukawa).

10. Park combined with Flanigan discloses claims 2, 8 and 14.

Park combined with Flanigan does not disclose expressly having a second possible state if the power button is held for a period of time less than T.

Furukawa discloses having two possible states, where if one holds the power button less than some time period T (e.g., less than 4 seconds), then the it assumes a state of suspend, (Fig. 2, element B and Column 2, lines 65-Column 3, lines 4). On the other hand, if it is held for past the time period T, then the device shuts down (Fig. 2, element C).

Furukawa, Park and Flanigan are analogous art because they are from the same field of endeavor in monitoring the elapsed time of a power button being depressed.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Furukawa, Park and Flanigan in order to have an additional state in the power button, particularly when dealing with wireless devices that interface a computer system.

The suggestion/motivation for doing so would have been the plethora of wireless devices that can be interfacing the computer at the same time, i.e., wireless mouse, wireless keyboard, wireless game controller, wireless headset, and so on. Each of these devices must have a distinct ID for the computer system to relay commands. Otherwise if identical IDs were used between devices, interference and improper communication of commands would occur. The simplest method of the user to guarantee he/she has a unique ID for the device is to press the button to change the ID if the device is not working due to conflicting ID codes.

Therefore, it would have been obvious to combine Furukawa with Park and Flanigan for the benefit of quickly and manually discovering a new ID code that uniquely identifies the wireless device.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to power efficiency related to wireless devices:

U.S. Pat. No. US006801967B2 to Nakamura et al.

U.S. Pat. No. US006098174A to Baron et al.

U.S. Pat. No. US 20030073434A1 to Shostak

U.S. Pat. No. US 20030085621A1 to Potega

U.S. Pat. No. US006781570B1 to Arrigo et al.

U.S. Pat. No. US006121881A to Bieback et al.

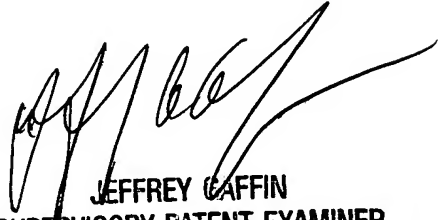
Art Unit: 2182

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
5/9/2005


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